What is Claimed is:

1. An implantable medical device comprising a self-supporting structural member fabricated of a plurality of laminated layers of at least one biocompatible material.

2. The implantable medical device according to Claim 1, wherein at least one of the plurality of laminated layers further comprises a monolithic bulk material.

3. The implantable medical device according to Claim 1, wherein the self-supporting structural member further comprises a stent having a plurality of structural elements.

4. The implantable medical device according to Claim 1, wherein the self-supporting structural member further comprises a graft.

5. The implantable medical device according to Claim 1, wherein the self-supporting structural member further comprises a stent-graft.

6. The implantable medical device according to Claim 1, wherein the self-supporting structural member further comprises a planar film.

7. The implantable medical device according to Claim 2, wherein the monolithic bulk material is selected from the group consisting of titanium, vanadium, aluminum, nickel, tantalum, zirconium, chromium, silver, gold, silicon, magnesium, niobium, scandium, platinum, cobalt, palladium, manganese, molybdenum and alloys thereof, zirconium-titanium-tantalum alloys, nitinol, and stainless steel.

8. The implantable medical device according to Claim 3, wherein at least some of the plurality of structural elements further comprise laminated layers of a biocompatible materials selected from the group consisting of titanium, vanadium, aluminum, nickel, tantalum, zirconium, chromium, silver, gold, silicon, magnesium, niobium, scandium, platinum, cobalt, palladium, manganese, molybdenum and alloys thereof, zirconium-titanium-tantalum alloys, nitinol, and stainless steel.

9. The implantable medical device according to Claim 4, wherein the graft further comprises a tubular member having a plurality of laminated layers concentrically adjacent to one another, each of the plurality of laminated layers having a

plurality of openings passing therethrough of sufficient dimension to permit cellular migration therethrough without permitting fluid flow therethrough.

10. The implantable medical device according to Claim 5, wherein the stent-graft further comprises a tubular member comprising stent regions and graft regions.

11. The implantable medical device according to Claim 10, wherein the stent regions further comprises a plurality of structural members each structural member being comprised of a plurality of laminated layers of a biocompatible material and the graft regions further comprise at least one of the plurality of laminated layers of the biocompatible material forming the structural members of the stent regions.

12. The implantable medical device according to Claim 11, wherein the graft regions subtend interstitial spaces between adjacent pairs of the plurality of structural members.

13. The implantable medical device according to Claim 12, wherein the stent regions further comprise a luminal surface, an abluminal surface and a z-axis thickness and the graft regions have a z-axis thickness less than the stent region z-axis thickness.

14. The implantable medical device according to Claim 5, stent-graft further comprises a stent comprising a plurality of interconnected structural elements forming a generally tubular member having a luminal surface, an abluminal surface, a proximal end and a distal end, and a graft comprising a film projecting outwardly from at least one of the proximal end and the distal end of the stent and along a longitudinal axis of the stent.

15. The implantable medical device according to Claim 14, wherein the film is everted from the at least one of the proximal end and the distal end of the stent over one of the luminal surface and the abluminal surface of the stent and joined to an opposing one of the proximal end and the distal end from which the graft projects.

16. An implantable medical graft comprising at least two tubular members concentrically positioned with respect to one another thereby defining an interfacial region between the at least two tubular members, each of the tubular members being comprised of a plurality of laminated plies forming the tubular member, and a

plurality of micro-openings passing through a wall thickness of each tubular member that create cellular migration pathways between a luminal and an abluminal surface of each of the at least two tubular members and through the graft.

17. The implantable medical graft according to Claim 16, further comprising a plurality of spacing members projecting into the interfacial region thereby maintaining the at least two tubular members in a concentric spaced-apart relationship.

18. The implantable medical graft according to Claim 16, further comprising a plurality of microgrooves in an interfacial region surface of at least one of the at least two tubular members.

19. An endoluminal stent comprising a plurality of structural members positioned to define a generally tubular member having interstitial regions between adjacent structural members, at least some of the plurality of structural members comprising a plurality of laminated plies of a biocompatible material and a web of a biocompatible material subtending at least a portion of some of the interstitial regions..

20. The endoluminal stent according to Claim 19, further comprising a plurality of openings passing through the web, the plurality of openings being sized to permit migration of cellular and sub-cellular matter therethrough.